

REMARKS

This is a response to the Final Office Action dated April 15, 2002 in which a shortened period of three months was set. Claims 1-65 were pending, and claims 66-119 have been added. No new matter has been added.

Claim 1 includes the limitation of claim ~~2~~. Claim 17 includes the limitation of claim 18. Claim 38 includes the limitation of ~~claim~~ 39. New claim 66 ~~includes~~ the limitations of claim 49. New claim 89 includes the limitation of ~~claim~~ 20. New claim 93 includes the limitation of claim 31. New claim 97 includes the ~~limitation~~ of claim 24. New claim 103 includes the limitation of ~~claim~~ 32. New claim 106 includes ~~the~~ limitation of claim 35. New claim 107 includes the limitation of ~~claim~~ 36. New ~~claim~~ 108 includes the limitation of claim 37. New claim 109 includes ~~the~~ limitation of claim 41. New claim 111 includes the limitation of ~~claim~~ 44. New claim 112 ~~includes~~ the limitation of claim 45. New claim 113 includes the limitation ~~of~~ claim 54. New claim 116 includes the limitation of ~~claim~~ 57. New claim 117 includes ~~the~~ limitation of claim 58. New claim 118 includes the limitation of ~~claim~~ 59.

In the Claims

In accordance with 37 CFR § 1.121(c), the following versions of the claims as rewritten by the foregoing amendment show all the changes made relative to the previous versions of the claims.

1. (Twice Amended) A fuel cell battery structure comprising:

at least two fuel cells each comprising an anode, cathode, and an ionically-conducting medium disposed therebetween;

a connector block, disposed adjacent to one side of the at least two fuel cells,

5 comprising means for electrically connecting the anodes and cathodes of the stacked cells

into ~~a desired~~ an electrical interconnection selected from the group consisting of series electrical interconnection, parallel electrical interconnection and mixed series and parallel electrical interconnection, and wherein said block mechanically holds the respective fuel cells in a fixed position as a result of mechanical engagement; ~~and~~

10 wherein another side of the at least two fuel cells remains exposed to permit

disengagement and removal of the fuel cells from the connector block; and

wherein the anode and cathode of each cell comprise a terminal conductor element

positioned on one side of the respective fuel cells, wherein said block is elongated along a

longitudinal axis and said cells are axially engaged with said block; wherein said block

15 comprises at least two rows of apertures extending along said axis; wherein said terminal

conductor elements of said anodes and cathodes extend away from the respective cells

and are adapted to be respectively inserted and engaged with said apertures, wherein the

terminal conductor elements of said anodes, when said cells are aligned, are offset from

the terminal conductor elements of the cathodes, wherein the terminal conductor elements

20 of the anodes are engaged with apertures in one of said rows and the terminal conductor

elements of the cathodes are engaged with apertures of the other of said rows.

3. (Amended) The fuel cell battery of claim 21, wherein the terminal conductor elements of the anodes and cathodes are configured in downwardly extending U-shaped configurations and said apertures in said block are positioned in an upper surface thereof, whereby the individual fuel cells are mechanically fixed against the block with

5 engagement of the terminal conductor elements and the apertures of said block.

4. (Amended) The fuel cell battery of claim 21, wherein said block comprises two pairs of rows of apertures adapted for engagement with the anode and cathode terminal conductor elements of at least two fuel cells laterally positioned against two lateral sides of said block.

16. (Amended) A fuel cell adapted for use in the battery structure of claim 21, comprising a flat plate structure configuration comprised of a replaceable zinc anode plate disposed between two air depolarizing cathode plates and separated therefrom by separator means, wherein the cathode plates are peripherally held in a sealed frame structure whereby a surface of each of said cathodes is externally exposed for contact with depolarizing air; said cell further comprising an anode current collector extending along an edge of said anode and terminating in a terminal conductor element which extends externally on one side of said cell and wherein said cell comprises a cathode current collector electrically engaged with said cathode plates which terminates in a terminal conductor element which extends externally on said one side of said cell.

17. (Amended) A fuel cell battery (FCB) device comprising:

a plurality of fuel cells each comprising a cathode, an anode, and an ionically-conducting medium disposed therebetween, the cathode having at least one cathode element and a cathode terminating element electrically coupled thereto, the anode having at least one anode element and an anode terminating element electrically coupled thereto; and

a connector block that supports the plurality of fuel cells and that independently and releasably engages each of the plurality of fuel cells, wherein the connector block further comprises a configuration means integral thereto; the configuration means, electrically coupled to the cathode terminating element and anode terminating element of the plurality of fuel cells, for configuring the plurality of fuel cells into an electrical interconnection selected from the group consisting of series electrical interconnection, parallel electrical interconnection and mixed series and parallel electrical interconnection.

24. (Amended) The FCB device of claim 22,

wherein the cathode of a given fuel cell further comprises a cathode support structure having a first post extending therefrom, the first post comprising a first male electrical connecting element electrically coupled to the cathode terminating element of the given fuel cell,

wherein the anode of a given fuel cell further comprises an anode support structure having a second post extending therefrom, the second post comprising a second male electrical connecting element electrically coupled to the anode terminating element

of the given fuel cell,

10 wherein the plurality of engagement elements of the connector block comprise first and second apertures corresponding to the cathodes and anodes of the plurality of fuel cells, the first aperture for a given fuel cell comprising a first female electrical connecting element and the second aperture for a given fuel cell comprising a second female electrical connecting element; and

15 wherein the first post of a given fuel cell is slidably inserted into the first aperture for the given fuel cell to electrically couple the first female electrical connecting element to the first male electrical connecting element of the given fuel cell (and to the cathode terminating element of the given fuel cell coupled to the first male electrical connecting
20 element), and wherein the second post of a given fuel cell is slidably inserted into the second aperture for the given fuel cell to electrically couple the second female electrical connecting element to the second male electrical connecting element of the given fuel cell (and to the anode terminating element of the given fuel cell coupled to the second male electrical connecting element).

38. (Amended) A fuel cell battery (FCB) device comprising:

a plurality of fuel cells each comprising a cathode, an anode, and an ionically-conducting medium disposed therebetween, the cathode having at least one cathode element and a cathode terminating element electrically coupled thereto, and the anode
5 having at least one anode element and anode terminating element electrically coupled thereto;

a connector block having a plurality of first and second engagement elements, corresponding to cathodes and anodes, respectively, of the plurality of fuel cells, that independently and releasably engage the corresponding cathode and anode to provide
10 electrical connection to the cathode terminating element and anode terminating element of the corresponding cathode and anode,

wherein the cathode of a given fuel cell further comprises a cathode support structure having an electrical connecting element electrically coupled to the cathode terminating element of the given fuel cell and slidably mated with the first engagement element for
15 the cathode of the given fuel cell.

40. (Amended) The FCB device of claim 3938, wherein the first engagement element in the connector block for the given fuel cell comprises an electrical connecting element electrically coupled to the electrical connecting element of the cathode support structure slidably mated thereto.

47. (Amended) The FCB device of claim ~~39~~38, wherein the electrical connecting element of the cathode support structure of a given fuel cell comprises a post extending therefrom that is slidably inserted into a first aperture in the connector block for the given fuel cell such that the connector block supports the given fuel cell.

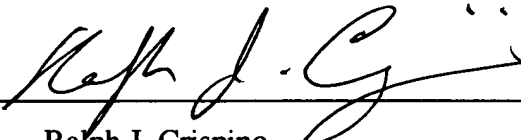
Conclusion

It is believed that the foregoing amendments and remarks fully comply with the Office Action and that the claims herein should now be allowable to Applicants. Accordingly, reconsideration and allowance is requested.

Additional Claim Fees

65 total claims were paid for, 4 of which are independent. This amendment cancels 3 dependent claims and 1 independent claims, and adds 53 total claims, 14 of which are independent. Therefore, additional fees for 49 total claims X \$9 = \$441, and 13 independent claims X \$42 = \$546, for a total of \$987 is due. Please charge \$987 to Deposit Account No. 501648 maintained by Applicant.

Respectfully submitted,

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